PROJECT DESCRIPTION

GENERAL

THIS PROJECT INVOLVES THE INSTALLATION OF A NEW TRAFFIC SIGNAL AND THE REMOVAL OF A TEMPORARY TRAFFIC SIGNAL AT THE INTERSECTION OF MD 45 (YORK ROAD) AND WEST ROAD IN BALTIMORE COUNTY.

INTERSECTION OPERATION

A SYSTEM CONTROLLER HOUSED IN A BASE MOUNTED CABINET SHALL BE INSTALLED AT THIS LOCATION. THE INTERSECTION WILL OPERATE IN A FULLY ACTUATED MODE USING 6 NEMA PHASES. MD 45 (YORK ROAD) THROUGH MOVEMENTS SHALL OPERATE CONCURRENTLY. THE LEFT TURNS ALONG SOUTH BOUND AND NORTH BOUND MD 45 (YORK ROAD) SHALL OPERATE AS EXCLUSIVE/ PERMISSIVE PHASING. THE SIDE STREETS SHALL OPERATE AS A SPLIT PHASE.

SPECIAL NOTES

1. THE FOLLOWING CONTACT PERSONS FOR THIS PROJECT ARE AS FOLLOWS:

PROJECT CONTACTS:

MR. RANDALL SCOTT, ASSISTANT DISTRICT ENGINEER - TRAFFIC
PHONE: (410) 321-2781
MS. SUE POPE, UTILITY ENGINEER
PHONE: (410) 321-2841
MR. RICHARD L. DAFF, SR. CHIEF TRAFFIC OPERATIONS DIVISION
PHONE: (410) 787-7630
MR. EDWARD RODENHIZER, SIGNAL OPERATION CHIEF
PHONE: (410) 787-7650
BGE SERVICE NUMBER WMS 973519

EQUIPMENT LIST

A. EQUIPMENT TO BE SUPPLIED BY THE ADMINISTRATION.

CATEGORY CODE NO.	DESCRIPTION	UNITS	QUANTITY
900000	BASE MOUNTED CABINET NEMA 6 WITH SYSTEM READY LOCAL CONTROLLER EQUIPMENT, VIDEO DETECTION EQUIPMENT AND RACK MOUNTED DETECTORS	EA	1
973023	SHEET ALUMINIUM SIGNS CONSISTING OF:	SF	173
	R3-5R (30"X36") MAST ARM MOUNT	EA	1
	R3-6 (30"X 36") MAST ARM MOUNT	EA	2
	D3-2 (16"X VAR.") MAST MOUNT	EA	4
	R10-12 (30"X36") MAST ARM MOUNT	EA	2
	SHIELD ASSEMBLY (36"X75")	EA	2
	SHIELD ASSEMBLY (24"X51")	EA	2
	R 3-6(1) MOD (54"X30")	EA	1
	R 3-5(2) (54"X30")	EA	1

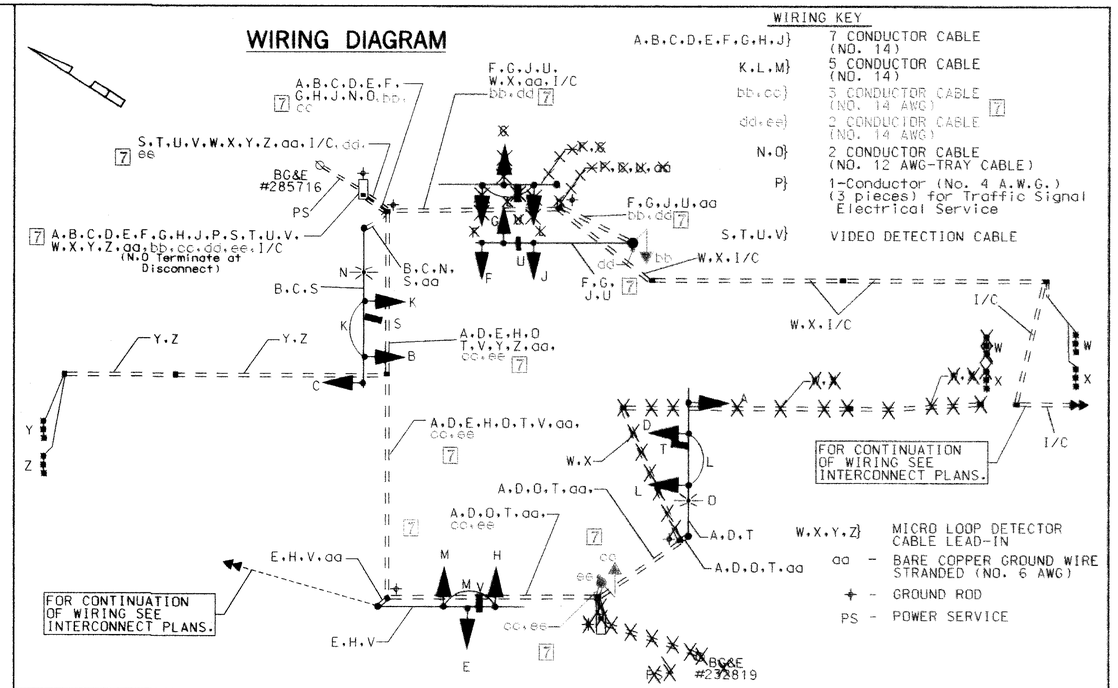
B. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY THE CONTRACTOR.

CATEGORY CODE NO.	DESCRIPTION	UNITS	QUANTITY
203030	TEST PIT EXCAVATION	CY	5
585620	12 INCH HEAT APPLIED WHITE PERM. PREFOR. THERMO. PAVEMENT MARKINGS	LF	250
585624	24 INCH HEAT APPLIED WHITE PERM. PREFOR. THERMO. PAVEMENT MARKINGS	LF	200
[7] 600000	DETECTABLE WARNING SURFACE	SF	50
[7] 634350	STANDARD CONCRETE CURB OPENING FOR COMBO CONCRETE CURB AND GUTTER	EA	2
[7] 655105	5 INCH CONCRETE SIDEWALK	SF	100
800000	REMOVE AND DISPOSE OF EXISTING EQUIPMENT	LS	1
800000	REMOVE AND RELOCATE VIDEO DETECTION CAMERA	EA	3
800000	250 WATTS HPS LAMP AND LUMINARIE WITH PHOTOCELL	EA	2
801004	CONCRETE FOR SIGNAL FOUNDATION	CY	20
802501	NO.6 AWG STRANDED BARE COPPER GROUND WIRE	LF	450
805125	2 INCH SCHEDULE 80 RIGID PVC CONDUIT-TRENCHED	LF	~~450~~ 250
[7] 805135	3 INCH SCHEDULE 80 RIGID PVC CONDUIT-TRENCHED	LF	~~100~~ ~~75~~ 85
805140	4 INCH SCHEDULE 80 RIGID PVC CONDUIT-TRENCHED	LF	~~40~~ 70
805118 ~~805155~~	4 INCH SCHEDULE 80 RIGID PVC CONDUIT ~~SLOTTED~~ PUSHED	LF	~~350~~ 340
805160	1 INCH LIQUID TIGHT FLEX. NON-METALLIC CONDUIT FOR DETECTOR SLEEVE	LF	~~20~~ 10
807400	ELECTRICAL UTILITY SERVICE EQUIPMENT 120/240 VOLTS 60 AMPS	EA	1
810550	MICROLOOP PROBE, 500 FOOT LEAD IN CABLE	EA	4
811001	FURNISH AND INSTALL ELECTRICAL HANDHOLE	EA	~~10~~ 9
813015	INSTALL OVERHEAD SIGN	SF	173
816001	VIDEO DETECTION CAMERA	EA	1
816005	CONTROL CABLE, 250 FOOT, VIDEO DETECTION CAMERA TO CONTROLLER	EA	~~2~~ 3
816010	CONTROL CABLE, 500 FOOT, VIDEO DETECTION CAMERA TO CONTROLLER	EA	~~2~~ 1
[7] 818004	10 FOOT BREAKAWAY BASE PEDESTAL POLE	EA	1
~~818030~~	~~STEEL POLE WITH A SINGLE 38 FOOT MAST ARM~~	EA	~~1~~ DELETED
818036	STEEL POLE WITH A SINGLE 50 FOOT MAST ARM	EA	~~2~~ 3
818041	STEEL POLE WITH A SINGLE 60 FOOT MAST ARM	EA	1
837001	GROUND ROD -3/4 INCH DIAMETER X 10 FOOT LENGTH	EA	5
860270	8 INCH VEHICULAR TRAFFIC SIGNAL HEAD SECTION	EA	12
860272	12 INCH VEHICULAR TRAFFIC SIGNAL HEAD SECTION	EA	38
[7] 860278	12 INCH PEDESTRIAN SIGNAL HEAD SECTION POLE MOUNT	EA	2
[7] 860282	12 INCH PEDESTRIAN SIGNAL HEAD SECTION PEDESTAL POLE MOUNT	EA	2
860292	CUT, CLEAN, GALVANIZE AND CAP TRAFFIC SIGNAL STRUCTURE	EA	2
[7] 861105	ELECTRICAL CABLE - 2 CONDUCTOR (NO. 14 AWG)	LF	365
[7] 861106	ELECTRICAL CABLE - 3 CONDUCTOR (NO. 14 AWG)	LF	365
861116 ~~861105~~	ELECTRICAL CABLE - 2 CONDUCTOR ~~(NO. 14 AWG)~~ (NO. 12 AWG, Tray Cable)	LF	~~300~~ 400
861107	ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 AWG)	LF	150
861108	ELECTRICAL CABLE - 7 CONDUCTOR (NO. 14 AWG)	LF	2000
862102	SAW CUT FOR SIGNAL (LOOP DETECTOR)	LF	75
[7] 865001	PUSHBUTTON AND SIGN	EA	2
866103	15 FOOT LIGHTING ARM ON SIGNAL STRUCTURE	EA	~~1~~ 2
871202	INSTALL CONTROLLER AND CABINET - BASE MOUNT	EA	1
811002	REMOVE EXISTING HANDHOLE	EA	1

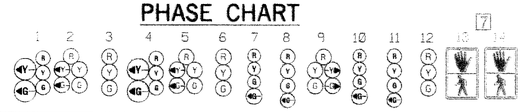
C. SHA FORCES SHALL REMOVE THE CONTROLLER AND ALL AUXILLIARY EQUIPMENT FROM THE CONTROLLER CABINET. THE CABINET AND ALL OTHER MATERIALS TO BE REMOVED BY THE CONTRACTOR SHALL BECOME THE PROPERTY OF THE CONTRACTOR.

DESCRIPTION	UNIT	QUANTITY
CONTROLLER	EA	1

WIRING DIAGRAM



PHASE CHART



	1	2	3	4	5	6	7	8	9	10	11	12	13 [7]	14 [7]	
PHASE 1 AND 5	◄G/R	◄G/R	R	◄G/R	◄G/R	R	R	R	R/G►	R	R	R	DW	DW	
1 AND 5 CHANGE TO 1 AND 6, 2 AND 5, OR 2 AND 6															
PHASE 1 AND 6	◄G/G	◄G/G	G	R	R	R	R	R	R/G►	R	R	R	DW	DW	
1 AND 6 CHANGE	◄Y/G	◄Y/G	G	R	R	R	R	R	R/Y►	R	R	R	DW	DW	
PHASE 2 AND 5	R	R	R	◄G/G	◄G/G	G	R	R	R	R	R	R	DW	DW	
2 AND 5 CHANGE	R	R	R	◄Y/G	◄Y/G	G	R	R	R	R	R	R	DW	DW	
PHASE 2 AND 6	G	G	G	G	G	G	R	R	R	R	R	R	DW	DW	
2 AND 6 CHANGE	Y	Y	Y	Y	Y	Y	R	R	R	R	R	R	DW	DW	
PHASE 3	R	R	R	R	R	R	◄G/G	◄G/G	G	R	R	R	DW	DW	
3 CHANGE	R	R	R	R	R	R	Y	Y	Y	R	R	R	DW	DW	
PHASE 4	R	R	R	R	R	R	R	R	R	◄G/G	◄G/G	G	DW	DW	
4 CHANGE	R	R	R	R	R	R	R	R	R	Y	Y	Y	DW	DW	
PHASE 4 ALT	R	R	R	R	R	R	R	R	R	◄G/G	◄G/G	G	WK	WK	
[7] PED CLEARANCE	R	R	R	R	R	R	R	R	R	◄G/G	◄G/G	G	FL/DW	FL/DW	[7]
4 ALT CHANGE	R	R	R	R	R	R	R	R	R	Y	Y	Y	DW	DW	
FLASHING OPERATION	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/R	FL/R	FL/R	FL/R	FL/R	FL/R	DARK	DARK	

GD-02

REDLINE REVISION [7]

SABRA, WANG & ASSOCIATES, INC.
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SUITE 160
BALTIMORE, MD 21227
(410) 737-8564
WWW.SABRA-WANG.COM

MARYLAND DOT - STATE HIGHWAY ADMINISTRATION
Office of Traffic & Safety
TRAFFIC ENGINEERING DESIGN DIVISION
GENERAL INFORMATION PLAN

MD 45 (YORK ROAD) AT WEST ROAD

DRAWN BY: S. SMITH	F.A.P. NO.		TS NO. 3384 C	SHEET NO. 130 OF 167
CHECKED BY: S. RENZI	S.H.A. NO.	BA3815172		
SCALE: N.T.S.	COUNTY:	BALTIMORE	T.I.M.S. NO. C-100	
DATE: APRIL, 2005	LOG MILE:	03004503.01		

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DATE: 06-MAR-03 07:03